

Exh. E: PestRoutes' Infringement of U.S. Patent No. 8,572,571

Exhibit E:

**PESTROUTES' INFRINGEMENT**

**of U.S. Patent No. 8,572,571**

## Exh. E: PestRoutes' Infringement of U.S. Patent No. 8,572,571

Claim	PestRoutes' Infringement <sup>1</sup>
<p>2. A system for modifying a terminal machine and a service provider machine, the system comprising:</p>	<p>PestRoutes provides a system for modifying a terminal machine and a service provider machine.</p> <p><i>See below.</i></p>
<p>[a] an update server machine comprising a processor and operable for sending a terminal dialogue module to the terminal machine and a provider dialogue module to the service provider machine to allow the terminal machine and the service provider machine to conduct a dialogue sequence with each other;</p>	<p>The accused system includes an update server machine (<i>e.g.</i>, a smart phone or other computing device accessing the PestRoutes system) comprising a processor and operable for sending a terminal dialogue module (<i>e.g.</i>, terminal machine portion of a scheduled routing) to the terminal machine (<i>e.g.</i>, an Android smart phone or other Android computing device running the TechRoutes app) and a provider dialogue module (<i>e.g.</i>, service provider machine portion of a scheduled routing) to the service provider machine (<i>e.g.</i>, PestRoutes server) to allow the terminal machine (<i>e.g.</i>, an Android smart phone or other Android computing device running the TechRoutes app) and the service provider machine (<i>e.g.</i>, PestRoutes server) to conduct a dialogue sequence (<i>e.g.</i>, series of prompts and corresponding user data entries) with each other.</p> <p>The accused system includes an update server machine (<i>e.g.</i>, a smart phone or other computing device accessing the PestRoutes system) comprising a processor. One of ordinary skill would understand that smart phones or other computing devices necessarily comprise a processor, <i>e.g.</i>, to run the operating system, applications, etc.</p> <p>The accused system includes an update server machine (<i>e.g.</i>, a smart phone or other computing device accessing the PestRoutes system) that is operable for sending a terminal dialogue module (<i>e.g.</i>, terminal machine portion of a scheduled routing) to the terminal machine (<i>e.g.</i>, an Android smart phone or other Android computing device running the TechRoutes app).</p>

<sup>1</sup> All examples of infringement are without limitation.

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	<p>The PestRoutes system can be accessed from any device, including PC, Android and iOS tablets, and Android and iOS phones. Therefore, these and other devices that can access the PestRoutes system constitute update server machine, which is a computing device capable of sending one or more dialogue modules.</p> <p>For example, without limitation, a dialogue module is sent from the office worker's device to the PestRoutes server. The PestRoutes server then sends information to the technician's TechRoutes app. The format of the information that is sent from the PestRoutes server to the technician's TechRoutes app is, for example, JSON.</p> <p>The accused system includes an update server machine (<i>e.g.</i>, a smart phone or other computing device accessing the PestRoutes system) that is operable for sending a provider dialogue module (<i>e.g.</i>, service provider machine portion of a scheduled routing) to the service provider machine (<i>e.g.</i>, PestRoutes server). This is done using, for example, HTTP.</p> <p>For example, without limitation, after receiving the respective dialogue module the technician can view scheduled routes. For example, without limitation, after receiving a scheduled route, the technician will be prompted to "Check In" to the appointment. In response to the prompt, the technician must either press the "Yes" or "No" button. After "Check[ing] In" to the appointment, the technician is provided additional prompts.</p> <p>The TechRoutes app confirms that the technician is provided with prompts and the technician provides user data entry in response to those prompts because, for example, the app "[a]llows you to view routes, addresses, directions, record chemicals used, mark time in / time out, and complete services. All from your mobile device!"<sup>2</sup></p>

<sup>2</sup> See, *e.g.*, [https://play.google.com/store/apps/details?id=com.pestroutes.techroutes&hl=en\\_US](https://play.google.com/store/apps/details?id=com.pestroutes.techroutes&hl=en_US)

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<p>[b] wherein the terminal machine is configured to run a terminal application that conducts the terminal machine's portion of the dialogue sequence with the service provider machine, the terminal application operable for displaying a prompt in a first sequence of prompts and accepting a user data entry in an associated first sequence of user data entries, wherein the terminal application comprises a first set of computer executable instructions and a first set of code, wherein the first set of computer-executable instructions are able to execute directly on a terminal processor of the terminal machine, and wherein the first set of code is not able to execute directly on the terminal processor;</p>	<p>The accused system includes a terminal machine (<i>e.g.</i>, an Android smart phone or other Android computing device running the TechRoutes app) that is configured to run a terminal application (<i>e.g.</i>, TechRoutes app for Android) that conducts the terminal machine's portion of the dialogue sequence (<i>e.g.</i>, series of prompts and corresponding user data entries) with the service provider machine (<i>e.g.</i>, PestRoutes server).</p> <p>The terminal application conducts the terminal machine's portion of the dialogue sequence with the service provider machine because, for example, without limitation, using the TechRoutes app, a technician is able to "Check In" to his or her PestRoutes appointment. The user is prompted to enter either "Yes" or "No" for checking into the appointment. The user is also able to record the chemicals that are used at the appointment site. This information is necessarily communicated to the PestRoutes server because, for example, without limitation, it must be recorded and available to other technicians.</p> <p>The terminal application is operable for displaying a prompt in a first sequence of prompts and accepting a user data entry in an associated first sequence of user data entries as explained herein, including above.</p> <p>The accused system includes a terminal application (<i>e.g.</i>, TechRoutes app for Android), and one of ordinary skill would understand that the TechRoutes app for Android comprises a first set of computer executable instructions and a first set of code, wherein the first set of computer-executable instructions are able to execute directly on a terminal processor of the terminal machine, and wherein the first set of code is not able to execute directly on the terminal processor. For example, without limitation, the Android Runtime (ART) comprises computer executable instructions that are able to execute directly on a terminal processor, while the app's bytecode is not able to execute directly on the terminal processor.</p>

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<p>[c] wherein the service provider machine is configured to run a provider application that conducts the service provider machine's portion of the dialogue sequence with the terminal machine, the provider application operable for receiving the user data entry, wherein the provider application comprises a second set of computer-executable instructions and a second set of code, wherein the second set of computer-executable instructions are able to execute directly on a provider processor of the service provider machine, and wherein the second set of code is not able to execute directly on the provider processor; and</p>	<p>The accused system includes a service provider machine (<i>e.g.</i>, PestRoutes server) that is configured to run a provider application (<i>e.g.</i>, PestRoutes server application) that conducts the service provider machine's portion of the dialogue sequence (<i>e.g.</i>, series of prompts and corresponding user data entries) with the terminal machine. As explained herein, user data entries (corresponding to the prompts) are communicated from the terminal application on the terminal machine to the provider application on the service provider machine.</p> <p><i>See above, incl. 2[b].</i></p> <p>The accused system includes a provider application (<i>e.g.</i>, PestRoutes server application, which is a PHP application), and one of ordinary skill would understand that the PestRoutes server application comprises a second set of computer-executable instructions and a second set of code, wherein the second set of computer-executable instructions are able to execute directly on a provider processor of the service provider machine, and wherein the second set of code is not able to execute directly on the provider processor. For example, without limitation, the Zend engine comprises computer-executable instructions which are able to execute directly on a provider processor, while the PHP is not able to execute directly on the provider processor.<sup>3</sup></p>
<p>[d] wherein the terminal dialogue module modifies the first set of code to produce a first set of updated code, wherein the provider dialogue module modifies the second set of code to produce a second set of updated code, wherein the terminal dialogue module does not modify the first set of</p>	<p>In the accused system, the terminal dialogue module (<i>e.g.</i>, terminal machine portion of a scheduled routing) modifies the first set of code to produce a first set of updated code ... wherein the first set of updated code adapts the terminal application to use a second sequence of prompts and a second sequence of data entries for the terminal machine's portion of a modified dialogue sequence (<i>e.g.</i>, series of prompts and corresponding user data entries) with the service provider machine.</p>

<sup>3</sup> *See, e.g.*, <http://us3.php.net/manual/en/internals2.zel.zendapi.php>.

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<p>computer-executable instructions and wherein the provider dialogue module does not modify the second set of computer-executable instructions, wherein the first set of updated code adapts the terminal application to use a second sequence of prompts and a second sequence of data entries for the terminal machine's portion of a modified dialogue sequence with the service provider machine, and wherein the second set of updated code adapts the provider application to use the second sequence of prompts and the second sequence of data entries for the service provider machine's portion of the modified dialogue sequence with the terminal machine.</p>	<p>As explained above, when an office worker sends a scheduled route using the PestRoutes system to a technician using their TechRoutes app, information is communicated to the technician's TechRoutes app (terminal application on the terminal machine).</p> <p>As also explained above, the dialogue sequence (<i>e.g.</i>, series of prompts and corresponding user data entries) is evidenced in the prompt to "Check In" to an appointment, and the corresponding user data entries of either accepting or rejecting the Check In. Additional prompts include entering the chemicals that were used during the appointment. For example, editing the chemicals that are used is not available unless the technician checks into the appointment.</p> <p>At least a portion of the information is necessarily stored on the terminal machine because, for example, without limitation, the scheduled routing appears on the technician's Android device and allows the technician to select it and "check in" even at a later time. Therefore, the terminal dialogue module modifies the first set of code to produce a first set of updated code.</p> <p>The first set of updated code adapts the terminal application to use a second sequence of prompts and a second sequence of data entries for the terminal machine's portion of a modified dialogue sequence with the service provider machine. For example, without limitation, as already explained herein, a second sequence of prompts and a second sequence of data entries is demonstrated when new scheduled routes are added for a technician, and they appear on the technician's Android device. This necessarily represents a modified dialogue sequence with the service provider machine.</p> <p>In the accused system, the provider dialogue module (<i>e.g.</i>, service provider machine portion of a scheduled routing) modifies the second set of code to produce a second set of updated code ... wherein the second set of updated code adapts the provider application to use a second sequence of prompts and a second sequence of data entries</p>

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	<p>for the service provider machine's portion of the modified dialogue sequence with the terminal machine.</p> <p>As discussed herein, when an office worker sends a scheduled routing using their device (<i>e.g.</i>, PC or mobile device) to a technician, information is communicated to the PestRoutes server application (provider application on the service provider machine).</p> <p>As also explained herein, the dialogue sequence (<i>e.g.</i>, series of prompts and corresponding user data entries) is evidenced in the prompt to accept the "Check In" and the corresponding user data entries of either accepting or rejecting the "Check in." Additional prompts include entering the name of chemicals used at that appointment.</p> <p>At least a portion of the information is necessarily stored on the provider machine because, for example, without limitation, the scheduled routing information is available on the PestRoutes server as well as to the assigned technician even if that technician signs into the TechRoutes app using a different mobile device or at a later time. Therefore, the provider dialogue module modifies the second set of code to produce a second set of updated code.</p> <p>The second set of updated code adapts the provider application to use the second sequence of prompts and the second sequence of data entries for the service provider machine's portion of the modified dialogue sequence with the terminal machine. For example, without limitation, as already explained herein, a second sequence of prompts and a second sequence of data entries is demonstrated when new scheduled routes are added for a technician, and they appear on the technician's Android device.</p> <p>In the accused system, the terminal dialogue module (<i>e.g.</i>, terminal machine portion of a scheduled routing) does not modify the first set of computer-executable instructions, as is readily understood by one of ordinary skill. For example, without limitation, as</p>

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	<p>already explained herein, ART comprises the first set of computer-executable instructions and is not modified by the terminal dialogue module.</p> <p>In the accused system, the provider dialogue module (<i>e.g.</i>, service provider machine portion of a scheduled routing) does not modify the second set of computer-executable instructions, as is readily understood by one of ordinary skill. For example, without limitation, as already explained herein, the Zend engine comprises the second set of computer-executable instructions and is not modified by the provider dialogue module.</p>